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AGRICULTURAL MEMORANDUM NO 619

FIELD DRAINAGE AT JEALOTT'S HILL

J Cochrane

Figures for throughput of field drains at Jealott's Hill were recorded during a high nitrogen trial on grassland.

Total field drainage for the 12-month period April to March was 7.68 ins in 1971-2 and 0.81 ins in 1972-3.

Water budget calculations for Jealott's Hill using monthly values of rainfall at Jealott's Hill against Met O 8a estimates of monthly potential transpiration for East Berkshire and the MAFF Technical Bulletin No 24 transpiration model for grass gave excess rain totals of 7.77 ins in 1971-2 and 1.08 ins in 1972-73.

The full water budget calculation is shown in the Appendix.

Any comments on suggestions on this paper should be sent to the author.

May 1974

Meteorological Office
BRACKNELL

APPENDIX

Water budget calculation, Jealott's Hill.

		Available Moisture ins			Beginning of Month				
		0-2	2-4	4-5	E.P.T.	RAIN	S.M.D.	Excess Rain MONTH	TOTAL
1971	Apr	2.0	2.0	1.0	2.10	2.18	0.0		
	May	2.0	2.0	1.0	3.60	1.83	0.0	0.08	0.08
	Jun	0.23	2.0	1.0	2.95	5.79	1.77	0.0	0.08
	Jul	2.0	2.0	1.0	3.95	0.44	0.0	0.97	1.05
	Aug	0.0	1.25	1.0	2.50	1.95	2.75	0.0	1.05
	Sep		0.97	1.0	2.05	0.64	3.03	0.0	1.05
	Oct		0.27	1.0	0.85	2.72	3.73	0.0	1.05
	Nov	1.87	0.27	1.0	0.20	2.31	1.86	0.0	1.05
	Dec	2.0	2.0	1.0	0.00	0.87	0.0	0.25	1.30
1972	Jan				0.05	2.30	0.0	0.87	2.17
	Feb				0.40	2.65	0.0	2.25	4.42
	Mar				1.30	2.40	0.0	2.25	6.67
	Apr				2.05	1.72	0.0	1.10	7.77
	May	1.67	2.0	1.0	2.95	1.38	0.33	0.0	
	Jun	0.10	2.0	1.0	3.00	0.95	1.90	0.0	
	Jul	0.0	1.03	1.0	3.35	1.05	2.97	0.0	
	Aug		0.0	0.94	3.05	1.03	4.06	0.0	
	Sep			0.43	1.70	0.89	4.57	0.0	
	Oct			0.23	0.85	0.83	4.77	0.0	
	Nov			0.22	0.20	2.56	4.78	0.0	
	Dec	2.0	0.36	0.22	0.00	2.70	2.42	0.0	
1973	Jan	2.0	2.0	1.0	0.05	0.71	0.0	0.28	0.28
	Feb				0.40	0.54	0.0	0.66	1.08
	Mar				1.30	0.48	0.0	0.0	1.08